

HARVARD UNIVERSITY
THE BIOLOGICAL LABORATORIES



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CAMBRIDGE, MASSACHUSETTS 02138

12. January 1981

Dr. Purnell W. Choppin
The Rockefeller University
1230 York Avenue
New York, NY 10021

Dear Dr. Choppin:

Thank you very much for the invitation to apply for the position of "Rockefeller University Fellow". I am very enthusiastic about the possibility of joining the Rockefeller faculty and am pleased to have my application considered by your committee.

My research interests are membrane protein expression, biosynthesis and processing. During my thesis work at M.I.T. with Phil Robbins and Harvey Lodish, I chose to analyze membrane protein biosynthesis using a viral model system. The majority of my thesis work dealt with the synthesis, glycosylation and processing of the membrane glycoproteins of the lipid enveloped RNA virus, Sindbis virus. During this period, I also analyzed the glycosylation of the Vesicular Stomatitis Virus glycoprotein and the murine leukemia virus glycoprotein. Since joining Wally Gilbert's lab, I extended my analysis to membrane protein primary structure through the use of recombinant DNA techniques. Again, I chose to study the Sindbis virus membrane proteins. I cloned a cDNA copy of the viral structural protein mRNA, determined the DNA sequence of the membrane glycoprotein genes and from that derived the protein sequence.

In the past year, I have become interested in applying the methodologies and approaches of membrane molecular biology to an analysis of protozoic parasites. During the summer of 1980, I participated in the first Biology of Parasitism course at the Marine Biological Laboratories. This was my first experimental contact with parasites and I found them fascinating. I initiated several collaborative projects, in addition to assuming primary teaching responsibility for the molecular biology/cloning section of the course. I intend to continue with this molecular analysis of protozoic parasites.

I have enclosed a copy of my curriculum vitae, a summary of my current work and a research proposal. I look forward to hearing from you.

Sincerely,

Dyann F. Wirth

Dyann F. Wirth, Ph.D.